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LISTING OF THE CLAIMS

**Claims pending**

- At time of the Action: Claims 1-2, 4-9, 11-16 and 20.
- After this Response: Claims 1-2, 4-6, 8, 11-16 and 20.

**Canceled or Withdrawn claims:** 3, 7, 9-10, and 17-19.

**Amended claims:** 1, 2, 4-6, 8, 11-14, and 20.

**New claims:** None.

1. (Currently amended) In a fiber optic network including at least one host digital terminal (HDT) that includes at least one optical multiplexing unit (OMU) and at least one optical interface unit (OIU), and including at least one optical network unit (ONU) that includes at least one further OIU. A one or more computer readable storage media having computer executable instructions stored thereon for performing a method for automated distribution of software in a fiber optic network loaded into the OMU, the OIU, and the further OIU, the method comprising:

- (a) identifying a version of first software comprised on a plurality of ~~firmware cards located in~~installed on the OMU a multiplexer in the fiber optic network;
- (b) determining whether the version of the first software comprised on the ~~firmware cards located in the multiplexer~~ is a first prescribed software version;
- (c) if the version of the first software comprised on at least one of said ~~firmware cards~~ is not the prescribed software version, updating the first software to be the prescribed software version;
- (d) identifying a version of further~~second~~ software comprised on at least a ~~further~~ firmware card located in at least one of a plurality of optical network units that are connected to the multiplexer over a fiber optic connection and that are connected to one another by an optical channel shelf provided by the multiplexeror installed on the OIU;
- (e) determining whether the version of the further~~second~~ software comprised on the ~~further~~ firmware card located in the optical network unit is a further~~second~~ prescribed software version; and

- (f) if the further version of the second software comprised in the further firmware card is not the further second prescribed software version, updating the further second software to be the second prescribed software version;
- (g) identifying a version of third software installed on the further OIU;
- (h) determining whether the version of the third software is a third prescribed software version; and
- (i) if the version of the third software is not the third prescribed software version, updating the third software to be the third prescribed software version;

(g) determining whether there is another optical network unit connected to the multiplexer over a fiber optic connection;  
if so, then returning to step (d); and  
if not, then determining whether there is another multiplexer in the fiber optic network and, if so, repeating the method for the other multiplexer.

2. (Currently amended) The computer readable media method of claim 1, further comprising instructions for contacting the HDT at least to identify the version of the first software and the version of the second software wherein identifying the software comprised on the firmware cards located in the multiplexer comprises identifying a version for the software.

3. (Cancelled).

4. (Currently amended) The computer readable media method of claim 1, further comprising instructions for determining whether the HDT includes at least a further OMU wherein identifying the software comprised on the firmware cards located in the multiplexer comprises identifying software comprised on an optical interface unit card.

5. (Currently amended) The computer readable media method of claim 14, wherein identifying the software comprised on the firmware cards located in the multiplexer comprises identifying software comprised on an optical multiplexing unit cardfurther comprising instructions for:

identifying a version of software installed on the further OMU;  
determining whether the version of the software installed on the further OMU is a prescribed software version; and  
if the version of the software installed on the further OMU is not the prescribed software version, updating the software installed on the further OMU to be the prescribed software version.

6. (Currently amended) The computer readable media method of claim 1, wherein identifying the software comprised on the firmware card located in the network unit comprises identifying software comprised on an optical interface unit cardfurther comprising instructions for determining whether the HDT includes at least a further OIU.

7. (Cancelled).

8. (Currently Amended) A method for automated distribution of software in a fiber optic network including at least one host digital terminal (HDT) that includes at least one optical multiplexing unit (OMU) and at least one optical interface unit (OIU), and including at least one optical network unit (ONU) that includes at least one further OIU, the method comprising:

- (a) identifying a version of first software installed on the OMU ~~comprised in a multiplexor in the fiber optic network;~~
- (b) identifying a version of second software ~~comprised in~~ installed in the further OIU ~~a network unit~~ connected to the multiplexor over a fiber optic connection;
- (c) determining whether there is at least a ~~another~~ further ~~network~~ unit ONU connected to the multiplexor OMU over a fiber optic connection;
  - if so, then identifying a version of software installed in at least one OIU included in the further ONU ~~returning to step (b)~~; and
  - if not, then:

determining if the second software ~~on the network unit~~ is compatible with the first software ~~on the multiplexor~~; and

if the first software ~~on any network unit~~ is not compatible with the second software ~~on the multiplexor~~, then updating the first software ~~on the network unit~~; and

determining whether ~~there is another multiplexer in the fiber optic network includes at least a further OMU and, if so, repeating the method for the other-further multiplexerOMU.~~

9. Cancelled.

10. Cancelled.

11. (Currently Amended) The method of claim 8, wherein determining if the second software ~~on the network unit~~ is compatible with the first software ~~on the multiplexer~~ comprises determining if a software—version of the second software ~~on the network unit~~ is compatible with a software—version ~~on the multiplexer~~of the first software.

12. (Currently Amended) The method of claim 8, wherein identifying a version of the first software ~~comprised in the multiplexer~~comprises determining a version of software installed on a firmware card in the ~~multiplexer~~OMU.

13. (Currently Amended) The method of claim 12, wherein determining the version of software on the firmware card in the ~~multiplexer~~OMU comprises determining the version of software on at least one of an optical interface unit card and an optical multiplexing unit card.

14. (Currently Amended) The method of claim 8, wherein identifying the software comprised in the network unitOIU comprises determining a version of software on a firmware card located on the network unitOIU.

15. (Previously Presented) The method of claim 14, wherein determining the version of software on the firmware card located on the network unit comprises determining the version of software on an optical interface unit card.

16. (Original) A computer readable medium having computer executable instructions for performing the method of claim 8.

17 - 19. Cancelled.

20. (Currently Amended) A system for automatically distributing software in a fiber optic network including at least one host digital terminal (HDT) that includes at least one optical multiplexing unit (OMU) and at least one optical interface unit (OIU), and including at least one optical network unit (ONU) that includes at least one further OIU, the system comprising:

a processor for executing computer executable instructions; and  
memory for storing computer executable instructions, wherein  
said memory has stored therein computer executable instructions for performing  
the following steps:

- (a) initiating a single contact with a the OMU multiplexer in the fiber optic network;
- (b) identifying software comprised on ones of a plurality of firmware cards located in the multiplexer OMU;
- (c) determining whether the software comprised on the firmware cards located in the multiplexer OMU is a prescribed software version;
- (d) if the software comprised on one of said plurality of firmware cards located in the multiplexer OMU is not the prescribed software version, updating the software;
- (e) identifying software comprised on a firmware card located in a network unit the ONU, wherein the ONU is connected to the multiplexer OMU over a fiber optic connection;
- (f) determining whether the software comprised on the firmware card located in the network unit ONU is a prescribed software version; and
- (g) if the software comprised in the firmware card located in one of the plurality of network units the ONU is not the prescribed software version, updating the software;
- (h) determining whether there is another network unit at least a further ONU connected to the multiplexer over a fiber optic connection;
  - if so, then returning to performing step (e) for the further ONU; and
    - if not, then determining whether there is at least another multiplexer OMU in the fiber optic network and, if so, repeating steps (a) through (h) for the other multiplexer OMU.